

CLAIMS

What is claimed is:

- 5 1. A method for correcting a first feature pattern with a first inner corner by an optical proximity correction, said method comprising:

10 dividing said first feature pattern into at least two divided feature patterns, such that said first inner corner is not in the middle of each of said two divided feature patterns.

- 15 2. The method according to claim 1, wherein the gap width between each of said divided feature patterns can be calculated according to the formula $D=\lambda/n$, wherein said λ is wavelength of the exposure light and n is a spacing between each of said divided feature patterns.

- 20 3. The method according to claim 2, wherein the values of said spacing is between 1.2 to 8.

4. The method according to claim 1, further comprises dividing said first feature pattern to form at least three divided feature patterns, such that said first inner corner is not in the middle of each of said three divided feature patterns.

5. The method according to claim 1, wherein said first feature pattern comprises a second inner corner adjacent to said first inner corner, such that said first inner corner and said second inner corner are not in the middle of each of said two divided feature patterns.

6. The method according to claim 5, further comprises dividing said first feature pattern to form at least three divided feature pattern, such that said first inner corner and said second inner corner are not in the middle of each said three divided feature patterns.

7. The method according to claim 6, wherein said first feature pattern comprises a third inner corner adjacent to said second inner corner, such that said first inner corner, said second inner corner, and said third inner corner are not in the middle of each said three divided feature patterns.

8. The method according to claim 7, wherein said first feature pattern comprises a forth inner corner adjacent to said third inner corner, such that said first inner corner, said second inner corner, said third inner corner, and said forth inner corner are not in the middle of each said three divided feature patterns.

9. The method according to claim 8, further comprises dividing said first feature pattern to form at least five divided feature patterns, such that said first inner corner, said second inner corner, said third inner corner, and said forth inner corner are not in the middle of each said five divided feature patterns.

10. A method of an optical proximity correction, said method comprising:

providing a first feature pattern, wherein said first feature pattern with a first inner corner; and

dividing said first feature pattern to form a second feature pattern and a third feature pattern, such that said first inner corner is not in the middle of each said second feature pattern and said third feature pattern.

11. The method according to claim 10, further comprises dividing said first feature pattern to form a forth feature pattern, such that said first inner corner is not in the middle of said second feature pattern, said third feature pattern, and said forth feature pattern.

12. The method according to claim 10, wherein said first feature pattern comprises a second inner corner adjacent to said first inner corner, such that said first inner corner and said second inner corner are not in the middle of said second feature pattern and said

third feature pattern.

13. The method according to claim 12, further comprises dividing said first feature pattern to form a fifth feature pattern, such
5 that said first inner corner and said second inner corner are not in the middle of said second feature pattern, said third feature pattern, and said fifth feature pattern.

14. The method according to claim 13, wherein said first
10 feature pattern comprises a third inner corner adjacent to said second inner corner, such that said first inner corner, said second inner corner, and said third inner corner are not in the middle of said second feature pattern and said third feature pattern.

15. The method according to claim 14, wherein said first
15 feature pattern comprises a forth inner corner adjacent to said third inner corner, such that said first inner corner, said second inner corner, said third inner corner, and said forth inner corner are not in the middle of said second feature pattern, said third feature pattern,
20 and said fifth feature pattern.

16. The method according to claim 15, further comprises dividing said first feature pattern to form a sixth feature pattern and a seventh feature pattern, such that said first inner corner, said second

inner corner, said third inner corner, and said forth inner corner are not in the middle of said second feature pattern, said third feature pattern, said fifth feature pattern, said sixth feature pattern, and said seventh feature pattern.

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17. A method of an optical proximity correction, said method comprising:

providing a first feature pattern, wherein the number of inner corner of said first feature pattern is selected from a group consisting
10 of a first inner corner and a second inner corner, a third inner corner, and a forth inner corner are adjacent to said first inner corner;

dividing said first feature pattern, wherein the number of a divided feature pattern of said divided first feature pattern is selected from a group consisting of a second feature pattern, a third feature
15 pattern, a forth feature pattern, and a fifth feature pattern, wherein said number of said inner corner is selected from a group consisting of said first inner corner, said second inner corner, said third inner corner, and said forth inner corner, that is not in the middle of said second feature pattern, said third feature pattern, said forth feature
20 pattern, and said fifth feature pattern.

18. The method according to claim 17, further comprises dividing said first feature pattern to form a sixth feature pattern and a seventh feature pattern, such that said first inner corner, said second

inner corner, said third inner corner, and said forth inner corner are not in the middle of said second feature pattern, said third feature pattern, said sixth feature pattern, and said seventh feature pattern.